Understanding Risk in Fixed Income Funds

FOR INTENDED RECIPIENTS ONLY

What are we going to talk about today?

- What is “Risk”?
- Risk in Fixed Income products
- How to evaluate “Risk”
- Case studies
- How to select Fixed Income funds
- Risk @ DSP BlackRock

How to evaluate “Risk”

Credit Risk Framework

Market Analysis

- Macroeconomic Trends
- Reserve Bank of India Policy
- Current Interest Rate Environment
- Interest Rate Outlook
- Credit Trends

Investment Parameters

- Investment Guidelines
- Liquidity Requirements
- Rating Agency Requirements (If Applicable)

Portfolio Management

- Interest Rate Risk
- Cash Flow Risk
- Credit Risk
- Liquidity Risk

RQA# Driven

Portfolio Implementation

Portfolio Monitoring

- DV01/ Duration
- Rating Exposure
- Issuer Exposure
- Sector Exposure
- Liquidity Buckets

RQA is acronym for Risk and Quantitative Analysis

Credit Risk: Initiation, Evaluation & Approval Process

Issuer Selection	Credit Evaluation		Information Sources	Credit Action
1) Request from Fund Manager 2) Industry Exposure 3) Rating Action	**Promoter Evaluation**	• Track Record • Risk Appetite • Shareholding	*Annual Reports and Quarterly Results*	
Issuer Identification	**Industry Analysis**	• Cyclicality • Competition • Regulations	*Company Presentations*	Proposal Evaluated by Credit Committee *CIO,* *Head - Risk,* *Head - Fixed Income*
	Operating Strength	• Market Share • Profitability • Efficiency	*Rating Agencies*	
	Financial Strength	• Capital Structure • Coverage Ratios • Liquidity	*Management Discussion*	1) Limit Assigned if Suitable 2) Limit Not Approved if Unsuitable
	Credit Supports	• Guarantee • Collateral • Covenants	*Sell Side Research* *Newspapers / Articles*	

Credit Committee

Agenda / Purpose

- Evaluating and modifying limits for issuers based on information available
- Withdrawing or reducing limits in case of negative developments or adverse news flows at company and/or sector level
- Discuss and evaluate periodic/annual review of issuers
- Frequency of Committee Meeting - Weekly (normally every Thursday @ 4:00 pm)
- Discuss monthly RQA Review including overview on credit limits, performance, portfolio positioning, competitor analysis
- Sharing information pertaining to matters such as: investor conferences attended, specific sector updates, new developments in market

Credit Monitoring Process

	Daily	Weekly	Monthly	Quarterly	Annual
Quantitative Factors	Price & Limit Verification Rating Changes	Weekly Credit Review Meeting Evaluating and Modifying Limits	Monthly Credit Pack: Fixed Income Issuer Limits, Exposure, Performance and Competitive Funds Analysis	Quarterly result analysis for listed entities Update to Board of AMC & Trustee Co.	Annual Review Process: Once a year detailed review for all issuers
Qualitative Factors	News flows on Company & Sector Withdrawal or Hold on Limits in case of any material development	Weekly Credit Review Meeting Evaluating and Modifying Limits	Ongoing meetings and discussions with company management		

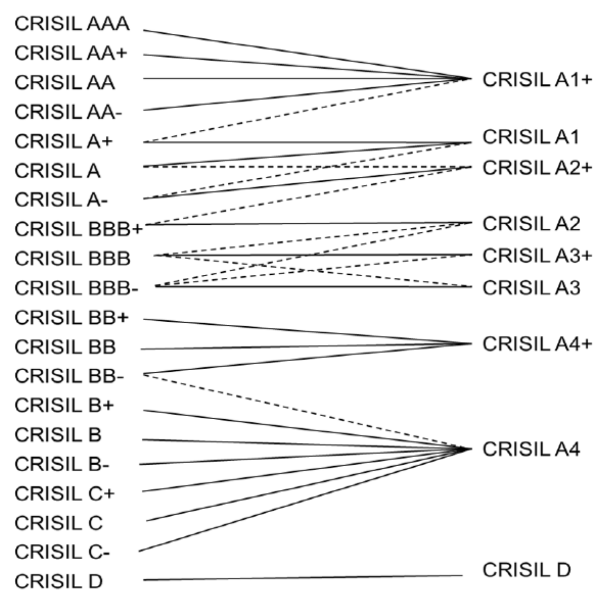
Standard Terminology: Rating Scales

Rating agencies use simple alphanumeric symbols to convey credit ratings. There is a long-term scale and a short-term scale

- Long Term Scale: Instruments having an original maturity of more than 1 year
- Short Term Scale: CP, working capital borrowings and other instruments having original maturity of more than 1 year
- Structured finance ratings (so): use a suffix ’so’ to depict a ‘credit enhancement' mechanism and/or a structured payment mechanism
- Modifiers: Plus and minus symbols are used to indicate finer distinctions within a rating category. The minus symbol associated with ratings has no negative connotations whatsoever

Symbol (Rating category)	Description (with regard to the likelihood of meeting the debt obligations on time)
AAA	Highest Safety
AA	High Safety
A	Adequate Safety
BBB	Moderate Safety
BB	Inadequate Safety
B	High Risk
C	Substantial Risk
D	Default

Typical mapping of LT rating to ST scale



Case Studies

#1: India's First Commercial Mortgage Backed Security issuance

India's first CMBS issuance

- Credit quality of the CMBS was better than the credit quality of the underlying issuer
- Whereas the CMBS was rated at AA(SO) by CRISIL, the underlying issuer was rated at A
- The credit quality difference is on account of superior quality of the mortgaged property, and ring-fencing of the asset; the rent of asset is first used to service the debt

Have seen stable rentals and occupancy in during every quarterly monitoring

Parameters	Key drivers	Credit comforts
Status and uniqueness of property	• Foremost luxury mall in India; located in South Delhi • Ultra luxury brands – Louis Vuitton, Christian Dior, Fendi, Gucci, etc.; has strong recession resistance	• Stable demand & high occupancy • Stable cashflow generation
High rentals & stability of cashflows	• Stable occupancy rate above 95% • Uniqueness of the property helps operator charge premium in rentals	• Comfortable cushion to interest service obligations • Strong ability to refinance at end of tenor
Key terms of structure	• Ring fencing of operational cashflows for debt servicing • Interest service coverage of 1.8x and LTV ratio of 50%; interest service reserve equal to 3 month rentals • Pledge of 100% equity share of the issuer; and put option at end of 5.5 years	• No leakage of cashflows before interest servicing • Entity can comfortably service debt even if rents fall by 40% • Ability to monetize the asset 2 years before contractual maturity

Performance of the CMBS asset

		Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15
Occupancy (%age leased)	%age	97%	98%	98%	97%	97%	97%
Total Number of tenants	Number	107	109	109	107	106	106
Blended Rentals	Rs. per sqf	323	329	323	326	325	320
Monthly Rentals (Received)	Rs. Million	96	98	97	97	96	95
Interest Payable for 3 months	Rs. Million	142	143	145	143	143	143
DSRA Account Balance	Rs. Million	143	143	143	143	143	143
%age availability of DSRA	%age	101%	100%	99%	100%	100%	100%

#2: Energy company having generation assets across fuel sources

The energy focused subsidiary of one of India's leading infrastructure financing & developing company

- Strategically important to holding company, which has > 95% economic interest in the entity
- 2.2 GW operating assets across different fuel sources – 2nd largest wind power portfolio, gas & coal based projects with power purchase & fuel supply agreements. Gas based project inaugurated by PM Modi, post our investment
- Healthy mix of completed and under-construction projects; has improved further since our investment

Rating has seen a one-notch upgrade since our investment

Parameters	Key drivers	Credit comforts
Strong promoter group & promoter support	• Promoter is one of the largest infrastructure financing and developing company; currently rated at AAA • Demonstrated financial support from the parent	• Imparts high financial flexibility • Strong project management skills
Diversity of generation assets across fuel sources	• Large portfolio of assets across both conventional and non-conventional fuel sources • Strong management and project execution capabilities • Healthy mix of completed and under-construction assets; improved further after completion of a number of projects in FY15 and FY16	• PPAs and FSAs protects margins • Substantial completion of then under-construction projects led to upgrade in rating of the entity from A- to A in April 2015
Financial flexibility	• Strong parentage of a AAA rated infrastructure financing & developing company • Ability to sell stake in operating companies to raise further equity	• Ability to raise finances to fund project pipeline going forward

#3: Loans against shares of port owning and operating company

Investments proposed in a weaker entity of the group, against pledge of shares of the largest company in the group – one of the largest port owner and operator in India

- Primary comfort from low level of existing pledges on these shares and a 2x share cover which gave a healthy cushion against sudden share price swings
- Dynamic cover to protect us in case of share price swings
- Ability to monetize the share collateral in case of impairment of issuer's ability to repay debt

We did not invest since covenants prevented our ability to freely enforce the pledge of shares in case of delay in repayments

Parameters	Key drivers	Credit issues
Good quality of pledge shares	• Good quality of operating port assets • Comfort of the equity team with the shares • AA+ rating of the company whose shares pledged	• Good quality of collateral with relatively high liquidity which gave comfort
Weak credit quality of ultimate issuer	• Large debt funded capex and continued losses had weakened capital structure of the actual issuer • Issuer's ability to repay debt through cashflows or refinancing without share collateral under question	• It was important to have liquid collateral which could be liquidated to redeem our investments
Covenants	• Dynamic cover with top up clause gave use comfort • Majority debenture holder agreement required for enforcing of pledge	• Discomfort with a clause that required more than 50% debenture holders to concur before enforcing pledge or accelerated redemptions

#4: Privately held group with interests in manufacturing & chemicals

Investments were made for last mile funding of company's chemical project in Egypt

- Locational advantages were likely to turnaround the business of the this plant and overall chemical business
- The manufacturing business was a cash cow and the cashflows from the same were ring fenced to service the debt
- Reputation and track record of the group

Exited investments when repayment capability worsened

- Low crude oil price negated the locational advantages of the project; mounting losses and cost and time overrun in the project made the possibility of a turnaround more difficult
- Weak commodity cycle impacted both businesses – end customer of manufacturing business impacted because of downturn in metals and mining, oil & gas space

Parameters	Key drivers	Credit issues
<u>While investing</u> Group reputation & ring fencing of most profitable part of the group	• Strong reputation of the group and clean image • Ring fencing of profitable and debt free products business of the group • Pledge of such shares and mortgage land	• Ring fencing of cashflows of the profitable part of the group being used to service debt • Value of collateral
<u>While exiting</u> Further weakening of credit metrics	• End customer of profitable part of businesses became weak financially because of slowdown in oil and gas, and mining • Weak cycle for both businesses; requirement of more funds to complete Egypt project and increasing difficulty in turning around Egypt project expected • Lack of clarity regarding ability to monetize any assets	• Profitability of the products business expected to moderate down; which was supporting the debt servicing • Mounting losses and low crude prices leading to the turnaround of the Egypt plant becoming more difficult

How to select Fixed Income funds

Factors to consider when selecting funds

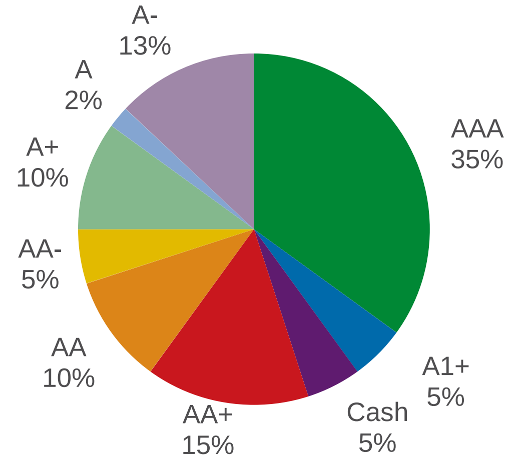
Examine the portfolio holdings

- Long term ratings and the outlook
- Number of rating downgrades in the last 12 months
- How many companies have had their outlook revised downwards?
- Total exposure to companies whose ratings have been downgraded or outlook revised downwards
- Total exposure to a group, not just one company

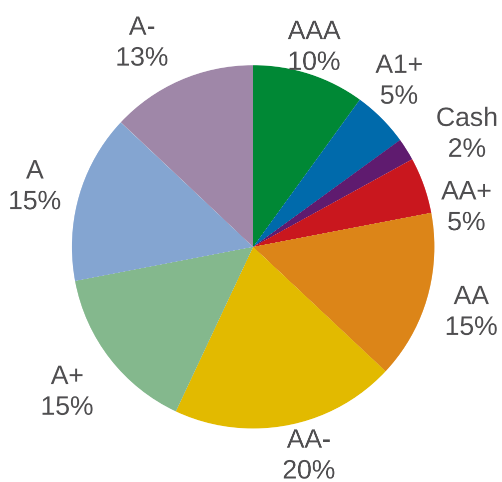
Analyze the portfolio's credit profile

- Exposure to various credit ratings, especially lower rated credits:
  - AA-
  - A+
  - A
  - A-
- Seek an investment rationale for each lower rated credit
- Estimate the liquidity cushion
  - Cash
  - AAA
  - A1+

Fund A – Credit Profile

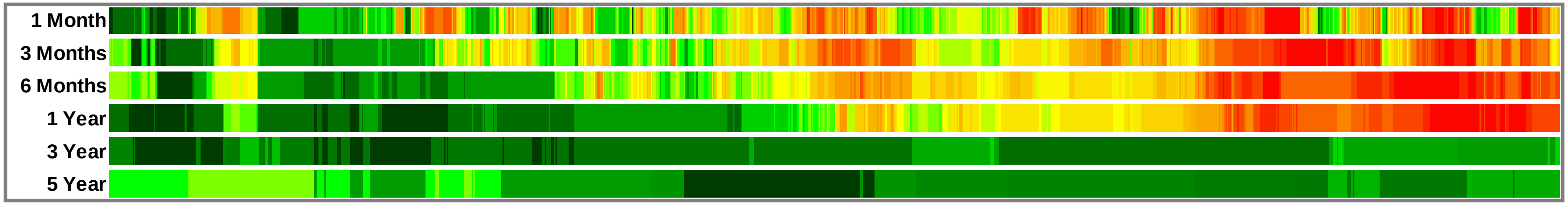


Fund B – Credit Profile

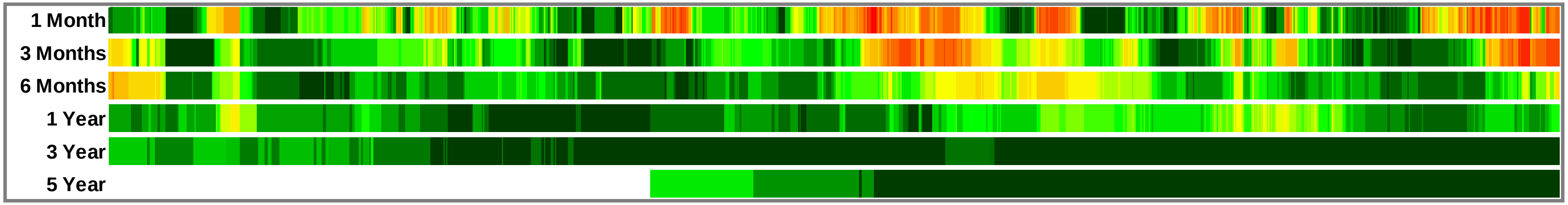


Identifying funds with performance momentum

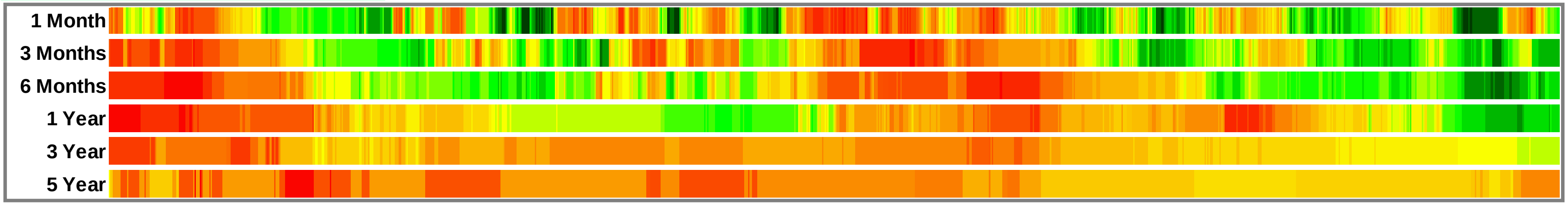
Losing Momentum



Maintaining Momentum



Gaining Momentum



Key:

Best performing fund in category — **Average performer** — **Worst performing fund**

Risk @ DSP BlackRock

Team Overview

Risk & performance Policy

Credit Research

Offshore Advisory Support

Risk & Performance Reporting

New Initiatives Products/ Channels/ Mandates

Product Development

Offshore PreSales Support

Market Intelligence

Head of Risk & Business Development

Pankaj Sharma (22)

Executive Vice President

Risk & Quantitative Analysis (RQA) | Advisory Support Group | New Initiatives & Product Team

Aparna Karnik (12)	Kunal Kunde (11)	Soumyo Roy (7)	Nandita Pandit (1)	Manprit Bhurji (14)	Jigna Anandpara (8)	Anil Ghelani (16)	Prashant Besekar (7)	Maanas Agarwal (6)
Vice President	Vice President	Asst. Vice President	Asst. Manager	Asst. Vice President	Manager	Senior Vice President	Asst. Vice President	Asst. Vice President









Continuous engagement with BlackRock teams across the region

Synergy of RQA and Products

Number in brackets ( ) is years of investment or investment-related experience

Team Profile

	Team members	Age	Years of Experience	Education	Years with Group
	Pankaj Sharma	45	22	B.E. (Computer Engineering); MBA (XLRI, Jamshedpur)	12
Risk & Quantitative Analysis	Aparna Karnik	37	12	MBA (JBIMS, Mumbai); Completed CFA Level 2	5
	Kunal Kunde	37	11	B.Tech. (IIT Bombay); M.S. (MIT); M.S. Financial Engg. (Columbia); CFA; FRM	2
	Soumyo Roy	29	7	B.Tech. (IIT Kharagpur); MBA (IIM Ahmedabad); Completed CFA Level I	1
	Nandita Pandit	25	1	Bachelor of Science, New York University, Leonard N. Stern School of Business	1
Advisory Support Group	Manprit Bhurji	35	14	B.Sc. (Mumbai University)	9
	Jigna Anandpara	30	8	MBA (Chetna's Institute, Mumbai), FRM	6
Product Management	Anil Ghelani	37	16	B.Com., CA (ICAI), CFA (CFAI, USA)	12
	Prashant Besekar	32	7	B.E. (Computer Engineering); MBA (JBIMS, Mumbai); Completed CFA Level 2	2
	Maanas Agarwal	30	6	B.S.; MBA (IIM Lucknow); Completed CFA Level I	2

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